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THE HISTORY OF A UNIVERSITY AND ITS PRESENT WORK

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THE

UNIVERSITY OF PENNSYLVANIA

PAST AND PRESENT

A COLLEGE with one hundred and fifty years of history means something in America. It means an institution which has seen the birth of a nation, its youth, and fuller development; it means an intellectual centre identified with the best thought of five generations. One cannot but feel that the history of such an institution must be worth recording, for it forms an integral part of the history of the nation itself.

BENJAMIN FRANKLIN'S PART

The University of Pennsylvania may be said to have its origin in the founding of an English charitable school in Philadelphia in 1740, although it was not until nearly ten years later that it began to have a collegiate form. It was in 1746 that Benjamin Franklin first recognized the need in the province of a college and academy of a high grade, and he at once set about the fulfillment of this project. As soon as possible after King George's War was over he published, in 1749, his famous pamphlet on "The Education of Youth in Pennsylvania," and formed a board of trustees. These gentlemen secured the co-operation of the city authorities and the public, and raised a fund for the new enterprise, combining with the plan the rehabilitation of the charitable schools before mentioned. The building on Fourth street, Philadelphia, where the charity schools had been, was rebuilt for the purpose, and "The Academy of Philadelphia" was opened formally in January, 1751.

A PROSPEROUS COLONIAL COLLEGE

Students flocked to the new institution at once, and Franklin tells us that in September, 1751, there were over one hundred, each paying yearly what would now be about one hundred dollars. The academy was divided into Latin, English, and Mathematical schools, and was in full accord with the demands of the times. But Franklin and the other trustees had a further development in view from the beginning, and under the able rectorship of the Rev. William Smith, a graduate of the University of Edinburgh, the academy advanced rapidly to the point where this was possible. Accordingly, in May, 1755, an additional charter was granted, and the institution became "The College and Academy of Philadelphia." Two years later the first class was graduated, and of its six members, two were afterward members of the first Continental Congress, one became the chaplain to that body, and one was a signer of the Declaration of Independence.

FROM COLLEGE TO UNIVERSITY

The change from college to a university came about in a very peculiar way. In 1779, under the flimsy pretext that the foundation had been narrowed, the Assembly of Pennsylvania took away the charter of the college, and bestowed all its properties upon a new institution, "The University of the State of Pennsylvania." But the old trustees still maintained an organization, and finally, in 1789, succeeded in getting back their charter. The two institutions now existed side by side for a time, but without profit. Accordingly, in 1791, upon mutual petition, they were united under a new charter as "The University of Pennsylvania." This was the first American institution chartered as a University.

THE UNIVERSITY'S LOCATION

During its life of a century and a half the University has occupied four sites, including the original one at Fourth and Arch streets. In 1802 a large mansion at Ninth and Chestnut streets, built originally for the President of the United States, was secured, and with several important changes this remained the home of the University for sixty-nine years. The whole property, with all the buildings, was then sold to the United States Government, which built on the site the present

Philadelphia post-office. The University in 1871 moved out to its present beautiful site in West Philadelphia, overlooking the Schuylkill, where it has forty-one acres, and can already see in the future the day when this will be far from enough for its needs.

A UNIVERSITY OF TO-DAY

The growth of the University has been slow, but uninterrupted. In its present organization it comprises thirteen departments, as follows: The College Department, including the Courses in Arts, in Science, (the Towne Scientific School), in Architecture, in Natural History, (the School of Biology), in Finance and Economy, (the Wharton School), and the course in Music; the Medical Department; the Department of Law; the Auxiliary Department of Medicine; the Department of Dentistry; the Department of Veterinary Medicine; the Department of Physical Education; the Department of Hygiene; the Graduate Department for Women; the Museum of Archæology; the University Hospital; and the Wistar Institute of Anatomy and Biology.

THE COLLEGE DEPARTMENT

The distinct courses offered in this department number altogether 329, grouped under thirty-three heads. But there is also a rough general division into seven parts, viz.: Courses in Arts, Courses in Science, the Wharton School, the Schools of American History, Biology and Architecture, and the Course in Music. All courses leading to a Bachelor's degree require four years' work or its equivalent, and the so-called technical degrees, such as Mechanical Engineer, etc., require the equivalent of five years' work. The College Department in the session of 1893 had 618 students, and a teaching force of eighty-eight.

COURSES IN ARTS

The group system of electives is offered in these courses. The work for all arts students is largely the same for the first two years, but with the beginning of Junior year the students are allowed to choose from twelve distinct lines of work, combining with the usual "culture studies" a wide variety of such studies as History, Political Economy, Biology, Zoölogy, Chemistry, Modern Languages, etc. All the instruction in

the Arts Courses is given in College Hall, except such studies as Chemistry, Biology, etc., which require special laboratory facilities, and are therefore given in the buildings specially devoted to those lines of work.

FINANCE AND ECONOMY

The Wharton School and the School of American History represent each a new idea in American education. The former was founded as an experiment in the education of business men, and as a preliminary to the law, journalism or public life; and has eminently justified the foresight of its founder. It recognizes the need for a broader preparation than has usually been given in the fields just mentioned, especially that of general business. The quality of work done in the school is best shown in two volumes, one on "The Development of American Industries," prepared and published by the Class of 1891, and the valuable work on "Philadelphia and its Government," which has just been published by the Class of 1893. The school's success is also seen in the places held by its graduates, and the high praise accorded it by such a body as the American Bankers' Association. The special work of the school is done in the Junior and Senior years. An excellent library in economics, history, and public law is owned by the school.

WORK IN AMERICAN HISTORY

The School of American History may be said to be an outgrowth of the Wharton School, though it is now quite separate from it in organization, and in the larger part of its curriculum. This school is the first attempt to give to American history and institutions the importance which should be theirs in the cultivation of a high grade of American citizenship. The directors of the school are Professor John Bach McMaster, whose "History of the American People" is well known, and Professor Francis Newton Thorpe. The library of the school is a large and unique one, including the most complete set of American government publications in the country, not excepting even the one at Washington; as good a collection of Canadian publications as the one at Ottawa; the only collection ever made of the laws of all the States; and collections containing the history of great public movements such as the temperance cause, ballot reform, abolition of slavery, etc. The regular course is two years, though other special courses are given.

THE SCHOOL OF ARCHITECTURE

Although this is one of the newest illustrations of the recent artistic development of Philadelphia, it is in its way one of the most significant. It had its origin in the minds of some of the best-known architects of Philadelphia, who have recognized the need for it, and have assisted its rapid growth by their cordial support. The school has now, in addition to the regular college faculty, fifteen special instructors, and offers a four-year course in architecture, two-year courses in architecture and interior decoration, and other shorter special courses. It has recently established a traveling scholarship in architecture, awarded annually after an open competition, the gentleman who was successful in the first of these competitions being now abroad. The director of the school is Professor Warren P. Laird.

THE INSTRUCTION IN CHEMISTRY

A fair example of what is being accomplished in many of our American institutions in the face of insufficient facilities is seen in the excellent work of the University's chemical laboratories during the past three years. The comparatively small endowment of the University has denied to this important work in the past the accommodation it has needed, so that there has not been room for all the students who wished to take this work. Yet under the able management of the well-known chemist, and editor of the "Richter Chemistries," Dr. Edgar F. Smith, in three years there have appeared from this laboratory no less than thirty-five independent investigations, the results of which have attracted wide attention here and in Europe. The department will, in the fall of 1893, occupy the large building now being erected for it on the University grounds. This will be among the largest chemical laboratories in the country, and has already attracted much attention for its beauty of construction and completeness of equipment. The department offers courses in chemistry of four and five years, and a new four year course in chemical engineering.

MECHANICAL ENGINEERING

The fact that the University is situated in such a scientific and industrial centre as Philadelphia is of vast importance to all its technical courses, but especially those in engineering. Mere laboratory work can be conducted anywhere, as can

instruction from textbooks, but there is a peculiar advantage to the student to have at his hand large industrial plants where the principles he is studying are to be found in working operation. It is the custom in the University's schools of mechanical and electrical engineering to assign the students to regular work in the visiting and reporting upon large plants every week throughout the term, in addition to a trip through neighboring States once a year. In connection with the University's new mechanical laboratories there is also the central light and heat plant for all the University buildings, in which the students are given ample and close study of the working of a large plant. The excellent standing of the graduates of the department is a sufficient guarantee of the thoroughness of the work done under the supervision of Professor Henry W. Spangler. Courses of four and five years are offered in both mechanical and electrical engineering.

COURSES IN CIVIL ENGINEERING

What has been said of graduates in mechanical engineering might with equal truth be repeated of those in civil engineering, many of whom in late years have been offered positions on the great railroads and other important interests centering in Philadelphia even before they have completed their college course. The work in civil engineering has recently been re-organized and extended under Professor Edgar Marburg, and is rapidly growing in importance and in its number of students. The courses at present offered are the regular five-year course, and the shorter course of four years, both leading to the degrees of Bachelor of Science and the technical degree of Civil Engineer.

THE SCHOOL OF BIOLOGY

The work in biology, zoölogy, botany, and their allied subjects is carried on in the Biological Laboratory. A course of four years, known as the Course in Natural History, is the regular course pursued by most of the students who take this work, but there are special courses offered also, and among them one of two years, which is intended primarily for those who intend to study medicine. The University Medical School allows those who have pursued a certain amount of work in the School of Biology to enter directly into the second year in

medicine. In connection with the School of Biology the University maintains during the summer the Marine Biological Laboratory at Sea Isle City, N. J., for the study of native flora and fauna. Women are admitted as special students in the School of Biology.

COURSES IN MUSIC

The instruction in music in the University is intended for advanced students only. The qualifications for entrance are that the applicant shall have some knowledge of the rudiments of music, and the ability to play on some instrument. The course extends through three years, and comprises instruction in such studies as harmony, counterpoint, composition, form and instrumentation. A certificate is given at the end of the course, and the Bachelor's Degree in Music is conferred upon the completion of certain prescribed work.

DEPARTMENT OF PHILOSOPHY—POST-GRADUATE WORK

All of the post-graduate work of the University, except that in law and medicine, is grouped under the department of Philosophy, which has in late years increased rapidly in strength and importance. The department last year had 117 students and forty-two instructors. The courses, which lead to the Degrees of Doctor of Philosophy, Master of Arts, or Master of Science, are grouped under twenty-one heads, although there are numerous sub-divisions. Among the subjects in which the University offers especially good facilities are the Semitic Languages, Classical Literature, Philology, Archæology, American History, Political Science, Economics, Philosophy, Physics, Natural History, Chemistry and Mathematics. The work in the Department of Philosophy is exactly paralleled in the Graduate Department for Women, women being admitted to the post-graduate degrees on equal terms with men. There is a special dormitory for women, and there are eight endowed fellowships open only to women.

THE SCHOOL OF MEDICINE

It is not a matter of conjecture why the University of Pennsylvania is so important a centre for medical research to-day. This school, founded in 1765, was the first medical school in America, and has always remained the largest. It is, perhaps, sufficient to say that there have been connected with

it in the past such men as Barton, Wistar, Chapman, Physick, Dewees, Horner, Hare, G. B. Wood, Hodge, the elder Pepper, Rodgers, Joseph Leidy and D. Hayes Agnew. Ever in touch with the need of the times, the school has recently taken the bold step of increasing its curriculum to four years, a change demanded by those who have seen the impossibility of giving a proper medical training in less time.

In its present organization the school has a faculty of sixteen full professors, with whom are associated ten assistant professors, and fifty-nine instructors, lecturers and demonstrators. Most of the lectures are given in Medical Hall, but the medical work of the University makes use altogether of seven buildings, including the University Hospital, one of the largest in the city.

THE LABORATORY OF HYGIENE

Besides the Biological School, which has been already noted in its proper place, there are several departments of the University which are more or less directly connected with the work of the Medical School. The first of these is the Laboratory of Hygiene, opened in 1892. It occupies a large building which is unique in America. It is in itself a perfect object lesson in hygiene and sanitation. Every known system of drainage, lighting, heating, ventilation and water-supply has been given a trial in the building, so that the very best may be known from actual tests. The building includes laboratories and special research rooms for work in general hygiene, and also in bacteriology, and has many features of interest. Four courses of eight weeks each are offered during the year, including instruction and laboratory work in Practical Hygiene, Chemistry, Elementary Bacteriology and Advanced Bacteriology. In addition there is a course of twelve weeks in Physiological Chemistry, with special attention to the products of bacterial growth. The laboratory has one endowed fellowship.

THE WISTAR INSTITUTE OF ANATOMY

This important department was founded recently by General Isaac J. Wistar, for the double purpose of providing a place for the famous Wistar and Horner Anatomical Museum of the University, and to provide for special advanced work in anatomy and biology. The superb building in which the

museums and laboratories are situated has just been completed, and will be occupied this year. This equipment will enable the University to pursue advanced investigations in fields never before explored, with no doubt important results.

DEPARTMENT OF DENTISTRY

Dentistry as a profession is comparatively new, yet it has been taught in our universities for a quarter of a century. The University of Pennsylvania school was the third in the country, and was founded in 1878. As at present organized the school has nine professors, and twenty-nine other instructors. Last year there were one hundred and fifty-three students, among whom were students from twenty-one foreign countries. The work of dental and medical students is largely in common, as it is recognized that dentistry is essentially a specialty of medicine. But on the other hand the very important technical portion of a dental training is fully provided for. The University has a very large operating room, and of the 25000 patients who are every year treated free in the dental schools of Philadelphia the University treats over one-third. This school has been among the first to introduce the three year course, which went into effect last year, and is destined to materially raise the standard of dental education.

THE UNIVERSITY LAW SCHOOL

If the excellent beginning which was made in 1789 had been followed up, the University's Law School would have ranked among her most venerable institutions. But even the presence of President and Madam Washington at the opening lecture did not ensure the success of the venture. Another attempt was made in 1817, with very little more success. But in 1850 the Law School was again organized under the famous Judge George Sharswood, and has since been one of the most flourishing departments of the University. This is the only department situated away from the University campus in West Philadelphia, and it occupies a whole floor of the Girard Building, in the heart of the city, and in close proximity to the courts of law. The course is three years in length, and the school has at present two hundred and twenty students. Graduates of the school are admitted without examination to practice in the county and supreme courts of the State. An excellent library is one of the features of the department.

VETERINARY DEPARTMENT AND HOSPITAL

A stone's throw from the University Hospital is another of a very different sort, where the patients lie on straw instead of linen. The buildings of the Veterinary School and Hospital are especially adapted for their uses, and have been said to form the best equipment for the purpose in this country. At any rate it is certain that the corps of twenty-one instructors are progressive, and ambitious that the school shall more than maintain its present advanced position. The instruction extends over three years, and is as complete as possible in all that belongs to the training of the veterinary surgeon. The Veterinary Hospital is without doubt one of the most interesting parts of the University. A visitor is at once impressed with the careful treatment of animals, which for comfort and kindness leaves nothing to be desired. The hospital is really a public charity, 1578 animals being treated free of charge last year.

UNIVERSITY LIBRARY

In these days the University without books would look far for its students. The University Library has increased more rapidly in the past ten years than any other college library, and is among the five American college libraries with more than one hundred thousand volumes. The University has now 110,000 bound volumes, and many more than that number of unbound volumes and pamphlets. Three years ago these were housed in a new building, said at the time to be the finest library building in the country. The library has its weak points, like most libraries, but it has also some very strong ones. And among the latter might be mentioned especially its 24,000 volumes in classical literature, its many volumes in modern languages and criticism, the large collections in philology, the Semitic collections, especially the Assyrian and Babylonian, and the unrivaled collections in American History and Political and Social Science. There is also a large medical library, and an especially noteworthy law library, the latter being kept in the quarters of the University Law School, in the Girard building.

UNIVERSITY'S EQUIPMENT

The modern university demands every year a larger equipment in books, in instruments, and especially, it would seem, in buildings. The University of Pennsylvania twenty

years ago could get along with four buildings; but to-day it occupies twenty-five, and needs several more. The reason is that a great university has many distinct lines of instruction and investigation, and each has its peculiar needs. So the multiplication of buildings is very rapid where a university wishes to be abreast of the times. Of Pennsylvania's recent buildings the most noteworthy are the Library, the Laboratory of Hygiene, the Engineering Laboratories, the Dog Hospital, the Wistar Institute of Anatomy, and the new Chemical Laboratory. Several of these are unique, and all are good examples of the enterprise which is the keynote of our American higher education. The plant of the University to-day is valued at $3,100,000, and its vested funds amount to $1,600,000.

SOME INTERESTING MUSEUMS

Its museums are an important part of the equipment of the University. Of the archæological collection the most valuable is the Babylonian, which contains the results of the University's own expedition to Babylonia a few years ago. Thousands of tablets and other relics were found, the inscriptions on which are now being translated. There are also collections from Egypt, Cyprus, China and Japan, another illustrating the games of all nations, and a most interesting collection in American archæology. The notable Maxwell Sommerville collection of engraved gems and talismans forms an important part of the museums of archæology. The Wistar and Horner Anatomical Museum is the finest of its kind in the country. Other collections especially adapted to the use of their respective departments are those of the Dental, Veterinary, and Biological Schools, and the museums of chemistry and geology.

ATHLETICS AT PENNSYLVANIA

While the existence of some grave evils in connection with college athletics is universally recognized, no one seems to doubt that college athletics are here to stay. Many of the difficulties have arisen through the placing of the management of athletics in inexperienced hands. At Pennsylvania much of this has been avoided by the formation of a University Athletic Association, which is a regularly chartered corporation, and is composed of both undergraduates and alumni. Under it all

University athletics are organized, a joint committee of undergraduates and alumni being in charge of each branch of sport. The University leases the athletic grounds to the association at a nominal sum, and leaves nearly every question respecting the athletic interests of the students to it. The association thus supports a base-ball team, a foot-ball team, a crew, and a track athletic team, finds the necessary means, looks after the training of the teams, employing trainers where necessary, and thus makes athletics so well organized that all sports are promoted, and no one sport is fostered at the expense of another. The result has been seen in a marked improvement in the general health of the students, a rapid growth of interest in legitimate athletics, and a continued improvement in University teams. The present athletic grounds, although excellently equipped with track and grand-stands, diamond, and foot-ball field, have been recently declared insufficient, and a ground of about twice the size, conveniently situated, is now being prepared. It will be fitted with club-house, dressing-rooms, baths, base-ball cage and everything necessary to the comfort of the students using it. It is also the intention to replace the present gymnasium, which is too small, with a new building, capable of accommodating easily the needs of the University's twenty-two hundred students.

PHILADELPHIA AND THE UNIVERSITY

In spite of the obvious advantages of having a college in a small town, where the life of the college shall be the whole life of the student, there is a growing tendency toward the belief that the university of the future is the university in the large city. The advantages of this connection are the greater as the city and the university grow in size and strength. A modern university cannot purchase and maintain all the collections of art, of science, of natural history, of literature, that its needs require. But in a large city these collections exist independent of the university. Thus the students of the University of Pennsylvania have the use of the large city libraries, the Pennsylvania Historical Society, the Academies of Sciences and of Fine Arts, the Franklin Institute of Science, the Museum of Industrial Art, and other valuable institutions, to many of which they are admitted free upon the presentation of their matriculation tickets. It is the universal testimony that great

schools of law and medicine cannot be maintained at all except in large cities, and this is equally true of schools of dentistry and veterinary medicine. The advantage to the engineering courses of having at hand great industrial plants like those of Philadelphia has already been touched upon. When to the above considerations one adds the opportunities for lectures, good music, and art exhibitions, which a large city affords, the claim of the city university is sufficiently well established.

TO ENTER THE UNIVERSITY

As the requirements for admission to the University differ greatly according to the department, it is better that those who wish to learn the requirements for any particular department should address the Dean of that department, whose name and address will be found in the list given below. He will be glad also to answer any questions as to courses, degrees, expenses, etc., and to send, upon application, copies of the University Catalogue, or the special catalogue which is printed annually for each department.

COLLEGE DEPARTMENT, - - - - - DR. HORACE JAYNE,
College Hall.

This department includes courses in Arts, in Science, in Mechanical, Electrical, Civil, and Chemical Engineering; in Finance and Economy, in American History, in Biology, in Chemistry, in Architecture, and in Music.

DEPARTMENT OF MEDICINE - - - DR. JOHN MARSHALL,
Medical Hall.

DEPARTMENT OF LAW - - - - - C. STUART PATTERSON, Esq.,
Girard Building, Philadelphia.

AUXILIARY DEP'T OF MEDICINE - - DR. HARRISON ALLEN,
1933 Chestnut street.

DEPARTMENT OF DENTISTRY - - - DR. JAMES TRUMAN,
3243 Chestnut street.

DEPARTMENT OF PHILOSOPHY - - - DR. HORACE JAYNE,
College Hall.

DEP'T OF VETERINARY MEDICINE - DR. JOHN MARSHALL,
36th and Pine streets.

LABORATORY OF HYGIENE - - - - DR. A. C. ABBOTT,
34th and Locust streets.

GRADUATE DEP'T FOR WOMEN - - DR. HORACE JAYNE,
College Hall.

WISTAR INSTITUTE OF ANATOMY - - DR. HARRISON ALLEN
1933 Chestnut street.

Any questions relating to the general government of the University should be addressed to the secretary, Rev. JESSE Y. BURK, College Hall.

SOME INTERESTING FACTS AND FIGURES

Pennsylvania's growth in ten years has been unprecedented in the history of American education. In 1882–83 there were 124 instructors and 984 students. Last year, 1892–93, there were 255 instructors and 2066 students, an increase of considerably over 100 per cent. In the same time seven new departments have been opened, and the University Library has increased over 500 per cent.

It is believed that the University attracts its students from a wider area than any other American institution. In 1892–93 the 2066 students represented forty-four States and Territories, and seventy-seven foreign countries. Two departments alone, the medical and dental, have 69 foreign students, representing 34 countries.

The University, since its foundation, has had in attendance altogether over 70,000 students, and has graduated 14,910 men. The oldest college graduate in America to-day is Dr. James Kitchen, of Philadelphia, who was graduated at Pennsylvania in 1819.

The United States Government has recently issued a volume of 450 pages entitled "Benjamin, Franklin and the University of Pennsylvania," in which the present University, its courses and its equipment, are fully described.

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